

## LIST OF TABLES

Table 1.	Summary of District Five-Year and 20-Year Costs of the Water Resource Development Projects Recommended in the LEC Plan. ....	viii
Table 2.	Current and Projected Water Demands for each Water Use Category by County within the LEC Planning Area. ....	3
Table 3.	Summary of Strategies and Recommended Actions Developed to Meet the Objectives of the LEC Plan. ....	13
Table 4.	Specifications of the High-Resolution Ground Water Models. ....	37
Table 5.	Threatened and Endangered Plant and Animal Species Found in the Lower East Coast Planning Area. ....	56
Table 6.	Minimum Canal Operation Levels of Coastal Canals. ....	91
Table 7.	Acronyms for SFWMM and Subregional Ground Water Model Base Case and Alternatives Simulations. ....	98
Table 8.	Comparison of Assumptions in the 1995 and 2020 Base Cases, 2020 with Restudy, and LEC-1 Simulations. ....	99
Table 9.	Components Included in the 2020 with Restudy Model Simulations. ....	103
Table 10.	Implementation Schedule for Restudy Components in Five-Year Increments. ....	106
Table 11.	Acronyms for SFWMM Incremental Simulations. ....	108
Table 12.	Comparison of Assumptions for Incremental Model Simulations by the SFWMM. ....	109
Table 13.	Revised Performance Targets for the St Lucie Estuary. ....	113
Table 14.	Information on All Water Restrictions in the SFWMM Simulations for the Base Cases and Alternatives for the Lake Okeechobee Service Area. ....	116
Table 15.	Information on Water Restrictions in the SFWMM Incremental Simulations for the LOSA. ....	117
Table 16.	Comparison of Assumptions for the Base Case and Alternative Simulations. ....	122
Table 17.	Assumptions for the Incremental Model Simulations by SFWMM. ....	122
Table 18.	Number of Years with Water Restrictions Caused by Local Triggers in the Base Case and Alternative SFWMM Simulations for the Lower East Coast Service Areas During the 30 Water Years Simulated. ....	124
Table 19.	Number of Times Water Restriction Triggers in the SFWMM Base Case and Alternatives for the Lower East Coast Service Area Were Triggered. ....	125
Table 20.	Water Supply Results for Ground Water Model Simulations of the 2020 with Restudy and the LEC-1 Alternatives. ....	128

Table 21.	The Number of Days Each Water Restriction Area Was Cutback in the LEC Service Areas Due to Local Ground Water Conditions.....	131
Table 22.	Number of Years with Water Restrictions Caused by Local Triggers in the SFWMM Incremental Simulations for the Lower East Coast Service Areas during the 30 Water Years Simulated.....	132
Table 23.	Number of Times Water Restriction Triggers in the SFWMM Incremental Simulations for the Lower East Coast Service Areas Were Triggered.....	133
Table 24.	South Florida Water Management Model Results for Base Cases and Alternatives for Natural Areas within the Lower East Coast Planning Area.....	137
Table 25.	South Florida Water Management Model Results for Incremental Simulations for Natural Areas within the Lower East Coast Planning Area.....	139
Table 26.	Summary of Base Case and Alternative Modeling Results for Lake Okeechobee Priority Performance Measures. ....	141
Table 27.	The Ability of Base Case and Alternative Simulations to Meet Proposed Minimum Water Level Criteria for Lake Okeechobee for the 31-Year Simulation Period. ....	142
Table 28.	Summary of Incremental Modeling Results for Lake Okeechobee Priority Performance Measures.....	143
Table 29.	Lake Okeechobee Minimum Flows and Levels Incremental Results for the 31-Year Simulation Period. ....	144
Table 30.	Number of Times Discharge Criteria Were Exceeded for the St. Lucie Estuary During the 31-Year Simulation Period. ....	146
Table 31.	Number of Times Discharge Criteria Were Exceeded for the 31-Year Simulation Period in the Incremental Simulations for the St. Lucie Estuary. ....	147
Table 32.	Number of Times Discharge Criteria Were Exceeded for the Caloosahatchee Estuary During the 31-Year Simulation Period.....	148
Table 33.	Number of Times Discharge Criteria Were Exceeded for the 31-Year Simulation Period in the Incremental Simulations for the Caloosahatchee Estuary. ....	148
Table 34.	Number of Times Discharge Criteria Were Exceeded for the Lake Worth Lagoon During the 31-Year Simulation Period.....	150
Table 35.	Number of Times Discharge Criteria Were Exceeded During the 31-Year Simulation Period in the Incremental Simulations for the Lake Worth Lagoon. ....	150
Table 36.	Duration of Average Annual Flooding in the Base Case and Alternative Simulations for the Everglades. ....	153
Table 37.	Number of Weeks Water Levels Were Below The Low Water Depth Criterion in the Base Case and Alternative Simulations for the Everglades.....	154

Table 38.	Number of Weeks the High Water Depth Criterion was Exceeded in the Base Case and Alternative Simulations for the Everglades. ....	154
Table 39.	Duration of Average Annual Flooding in the Incremental Simulations for the Everglades.....	155
Table 40.	Number of Weeks Water Levels Were Below the Low Water Depth Criterion in the Incremental Simulations for the Everglades. ....	155
Table 41.	Number of Weeks the High Water Depth Criterion was Exceeded in the Incremental Simulations for the Everglades. ....	156
Table 42.	Total Average Annual Flows Discharged into Northern Everglades National Park, East and West of L-67A (1000 ac-ft). ....	165
Table 43.	Mean NSM Hydroperiod Matches with Respect to NSM. ....	165
Table 44.	Minimum Water Level, Duration, and Return Frequency Performance Measures for Selected Water Management Gages Located within the Everglades (SFWMD, 2000e).....	168
Table 45.	Minimum Flows and Levels Results of the Base Case and Alternative Simulations for the Everglades. ....	169
Table 46.	Minimum Flows and Levels Results of the Incremental Simulations. ....	171
Table 47.	Total Mean Annual Flows Discharged into Northern, Central, and Southern Biscayne Bay for the Base Case and Alternative Simulations during the 31-Year Simulation Period. ....	172
Table 48.	Total Mean Annual Flows Discharged into Northern, Central, and Southern Biscayne Bay for the Incremental Simulations during the 31-Year Simulation Period. ....	173
Table 49.	Number of Times Minimal Minimum Flows and Levels Operational Criteria Were Not Met for the Biscayne Aquifer.....	173
Table 50.	Description of Flow Arrows on the Primary Water Budget Components Maps.....	176
Table 51.	Water Resource Development Projects that Provide Water Supplies Associated with MFL Recovery Plans and Water Reservations. ....	198
Table 52.	Summary Information Regarding Water Resource Development Recommendations from the LEC Interim Plan.....	206
Table 53.	Minimum and Maximum Water Capacity of Major CERP Components.....	217
Table 54.	Average Annual Amounts of Water Provided by CERP Components.....	218
Table 55.	Average Annual Basin-by-Basin Demands for the 31-Year Simulation Period and for Drought Years and How They Are Met. ....	219
Table 56.	Summary of the LEC Water Utility Pumps On and Pumps Off Scenarios for Selected Everglades Sites for the 2020 Base Case. ....	230

Table 57.	Results of the Model Simulation for Selected Everglades Sites: 2005 versus 2005 with a 30 Percent Cutback in Public Water Supply Withdrawals for Miami-Dade County. ....	231
Table 58.	Results of the Model Simulation for Selected Everglades Sites: LEC-1 Revised versus LEC-1 Revised with a 30 Percent Cutback in Public Water Supply Withdrawals for Miami-Dade County. ....	233
Table 59.	Changes in Per Capita Water Use for Larger Utilities within the District. ...	243
Table 60.	1998 Mobile Irrigation Lab Costs and Estimated Water Savings. ....	245
Table 61.	Representative Water Use and Cost Analysis for Retrofit Indoor Water Conservation Measures. ....	246
Table 62.	Representative Water Use and Cost Analysis for Retrofit Outdoor Water Conservation Measures. ....	246
Table 63.	Irrigation Costs and Water Use Savings Associated with Conversion from Flood Irrigation to Micro Irrigation. ....	247
Table 64.	Average Per Capita Water Use Resulting From Projections A and B. ....	247
Table 65.	Percent Reduction in Total Average Use Resulting from Conservation. ....	248
Table 66.	Surficial Aquifer System Well Costs. ....	251
Table 67.	Lime Softening Treatment Costs. ....	252
Table 68.	Membrane Softening Costs. ....	252
Table 69.	Floridan Aquifer System Well Costs. ....	255
Table 70.	Reverse Osmosis Costs to Treat Water from the Floridan Aquifer System. ....	255
Table 71.	Concentrate Disposal Costs for Reverse Osmosis Disposal. ....	256
Table 72.	Domestic Wastewater Treatment Facilities Providing Reuse. ....	257
Table 73.	Reclaimed Water Utilization. ....	258
Table 74.	Disposal Facilities with No Reuse. ....	261
Table 75.	Aquifer Storage and Recovery System Costs. ....	264
Table 76.	Reservoir Costs. ....	266
Table 77.	Estimated Schedule and Costs for Regional Saltwater Intrusion Management. ....	274
Table 78.	Estimated Schedule and Costs for Refining the FAS Ground Water Model. ....	275
Table 79.	Estimated Schedule and Costs for Completing the Northern Palm Beach County Comprehensive Water Management Plan. ....	277
Table 80.	Estimated Schedule and Costs for Continuing the Implementation of the Eastern Hillsboro Regional ASR Pilot Project. ....	278
Table 81.	Estimated Schedule and Costs for the Hillsboro (Site 1) Impoundment Pilot Project. ....	279

Table 82.	Estimated Schedule and Cost for Developing Lake Worth Lagoon Minimum and Maximum Flow Targets.....	281
Table 83.	Estimated Schedule and Costs for the Northern Broward County Secondary Canals Recharge Network. ....	282
Table 84.	Estimated Schedule and Costs for the Southeast Broward County Interconnected Water Supply System.....	283
Table 85.	Estimated Schedule and Costs for Broward County Urban Environmental Enhancement.....	284
Table 86.	Estimated Schedule and Costs for Developing the Miami-Dade WASD Utility ASR.....	285
Table 87.	Estimated Schedule and Costs for Developing Biscayne Bay Minimum and Maximum Flow Targets.....	286
Table 88.	Estimated Schedule and Costs for the Critical Projects for which the District is the Local Sponsor. ....	287
Table 89.	Estimated Schedule and Costs for the CWMP Well Abandonment program. ....	288
Table 90.	Estimated Schedule and Costs for the CWMP Saltwater Influence Analysis. ....	289
Table 91.	Estimated Schedule and Costs for Permitting Issues Associated with ASRs. ....	290
Table 92.	Estimated Schedule and Costs for Establishing Mobile Irrigation Labs. ....	291
Table 93.	Nonfederal Funding Responsibility of CERP Projects in the Lower East Coast Planning Area. ....	292
Table 94.	Nonfederal Funding Responsibility of CERP Projects in the Caloosahatchee Basin. ....	295
Table 95.	Estimated Schedule and Costs for the Implementation of the Caloosahatchee River ASR Pilot Project.....	304
Table 96.	Estimated Schedule and Costs for the C-43 Basin Storage Reservoir and ASR Project. ....	304
Table 97.	Estimated Schedule and Costs for the Southwest Florida Study. ....	306
Table 98.	Estimated Schedule and Costs for Developing Systemwide Operational Protocols. ....	309
Table 99.	Estimated Schedule and Costs for Developing Periodic Operational Flexibility.....	311
Table 100.	Estimated Schedule and Costs for the Lake Okeechobee Vegetation Management Plan. ....	312
Table 101.	Target Dates for Establishing MFLs and Reservation Rules.....	314
Table 102.	Estimated Schedule and Costs for Reservation of Water. ....	315

Table 103. Estimated Schedule and Costs for Establishing MFLs. ....	316
Table 104. Estimated Schedule and Cost for MFL Research for the Rockland Marl Marsh. ....	317
Table 105. Estimated Schedule and Cost for MFLs for the Florida Bay.....	318
Table 106. Estimated Schedule and Cost for MFL Recovery Strategies.....	319
Table 107. Estimated Schedule and Cost for Establishing a MFL Monitoring System. .	320
Table 108. Estimated Schedule and Costs for the Conservation Program. ....	323
Table 109. Estimated Schedule and Costs for a Feasibility Study for Reverse Osmosis Treatment of Seawater. ....	324
Table 110. Estimated Schedule and Costs to conduct a Feasibility Study for a Reclaimed Water System for Northern Palm Beach County.....	325
Table 111. Estimated Schedule and Costs for the Aquifer Recharge Study.....	327
Table 112. Estimated Schedule and Costs for High Volume Surface Water ASR Testing for Taylor Creek. ....	328
Table 113. Costs of Recommendations by Fiscal Year (\$1,000s).....	333